

24975_ST25.txt
SEQUENCE LISTING

<110> Institute of Immunology, PLA
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Wu, Yuzhang
Bian, Jiang
Zhou, Wei
Jia, Zhengcai
Shi, Tongdong
Zou, Liyun

<120> Immunogen for Preparation of Therapeutic Vaccines or Drugs for
Treatment of Hepatitis B and the Producing Method and Use Thereof

<130> CCPT-1-24975

<140> 10/528,350
<141> 2006-02-15

<150> PCT/CN03/00792
<151> 2003-09-18

<150> CN 02130738.5
<151> 2002-09-18

<160> 73

<170> PatentIn version 3.5

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CH₃(CH₂)₁₄CO

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<223> Xaa can be any naturally occurring amino acid

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Xaa Ala Ala Ser Ser Gln Tyr Ile Lys Ala Asn Ser Lys Phe Ile Gly
1 5 10 15

Ile Thr Glu Ala Ala Ala Phe Leu Pro Ser Asp Phe Phe Pro Ser Val
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Gly Gly Gly Asp Pro Arg Val Arg Gly Leu Tyr Phe Pro Ala
35 40 45

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Phe Pro Ala
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 20 25 30

Ala

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 20 25 30

Gly Gly Gly Cys Thr Lys Pro Thr Asp Gly Asn Cys Thr
 35 40 45

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Ile Thr Glu Ala Ala Ala Ser Ile Val Ser Pro Phe Ile Pro Leu Leu
 20 25 30

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Gly Gly Gly Asp Pro Arg Val Arg Gly Leu Tyr Phe Pro Ala
35 40 45

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Gln Tyr Ile Lys Ala Asn Ser Lys Phe Ile Gly Ile Thr Glu
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Pro Ala Asp Arg Glu
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<400> 8

Pro Leu Gly Phe Phe Pro Asp His
1 5

<210> 9
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Met Gln Trp Asn Ser Thr Ala Leu His Gln Ala Leu Gln Asp Pro
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Ser Ile Leu Ser Lys Thr Gly Asp Pro Val

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Val Leu Gln Ala Gly Phe Phe Leu Leu
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Phe Leu Leu Thr Arg Ile Leu Thr Ile
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Phe Leu Gly Gly Thr Pro Val Cys Leu
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Leu Leu Cys Leu Ile Phe Leu Leu Val
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Leu Leu Asp Tyr Gln Gly Met Leu Pro Val
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<210> 16
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Trp Leu Ser Leu Leu Val Pro Phe Val
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<210> 17

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Gly Leu Tyr Ser Ser Thr Val Pro Val
 1 5

<210> 18

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Lys Val Leu His Lys Arg Thr Leu Gly Leu
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<210> 19

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<213> Hepatitis B virus

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Val Leu His Lys Arg Thr Leu Gly Leu
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<210> 20

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Gly Leu Ser Ala Met Ser Thr Thr Asp Leu
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<210> 21

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Cys Leu Phe Lys Asp Trp Glu Glu Leu
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<210> 22

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<400> 22

Val Leu Gly Gly Cys Arg His Lys Leu Val
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<210> 23
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Phe Leu Pro Ser Asp Phe Phe Pro Ser Val
 1 5 10

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<400> 24

Ser Thr Leu Pro Glu Thr Thr Val Val Arg Arg
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<210> 25
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Glu Tyr Leu Val Ser Phe Gly Val Trp
 1 5

<210> 26
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<400> 26

Gly Leu Tyr Ser Ser Thr Val Pro Val
 1 5

<210> 27
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<400> 27

Gly Leu Ser Arg Tyr Val Ala Arg Leu
 1 5

<210> 28
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<400> 28

Phe Leu Leu Ser Leu Gly Ile His Leu
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<210> 29
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Ile Leu Arg Gly Thr Ser Phe Val Tyr Val
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Ser Leu Tyr Ala Asp Ser Pro Ser Val
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Lys Tyr Thr Ser Phe Pro Trp Leu Leu
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Ser Leu Tyr Ala Asp Ser Pro Ser Val
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Ala Leu Met Pro Leu Tyr Ala Cys Ile
1 5

<210> 34
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Tyr Met Asp Asp Val Val Leu Gly Ala
1 5

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<400> 35

Trp Ile Leu Arg Gly Thr Ser Phe Val
1 5

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Lys Leu His Leu Tyr Ser His Pro Ile
1 5

<210> 37
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<400> 37

Phe Thr Gln Ala Gly Tyr Pro Ala Leu
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<210> 38
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Gly Leu Ser Pro Thr Val Trp Leu Ser Val
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<210> 42

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Tyr Val Asn Thr Asn Met Gly
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Tyr Val Asn Thr Asn Met Gly Leu Lys Ser Glu Gln
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Gly Leu Ser Pro Thr Val Trp Leu Ser Val
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Ser Ile Val Ser Pro Phe Ile Pro Leu Leu
1           5           10

<210> 48
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<213> Hepatitis B virus

<400> 48
Asp Pro Arg Val Arg Gly Leu Tyr Phe Pro Ala
1           5           10

<210> 49
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Cys Thr Lys Pro Thr Asp Gly Asn Cys Thr
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1          5          10          15

Phe Leu Gly Gly Thr Thr Val Ser Ser Asp Pro Arg Val Arg Gly
          20          25          30

Leu Tyr Phe Pro Ala
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<223> Xaa can be any naturally occurring amino acid

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Xaa Ala Ala Ser Ser Gln Tyr Ile Lys Ala Asn Ser Lys Phe Ile Gly
1          5          10          15

Ile Thr Glu Ala Ala Ala Leu Leu Cys Leu Ile Phe Leu Leu Val Gly
          20          25          30

Gly Gly Asp Pro Arg Val Arg Gly Leu Tyr Phe Pro Ala
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<220>

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<222> (1)..(1)

<223> Xaa can be any naturally occurring amino acid

<400> 52

Xaa Ala Ala Ser Ser Pro Ala Asp Arg Glu Ala Ala Ala Leu Leu Asp
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Tyr Gln Gly Met Leu Pro Val Gly Gly Asp Pro Arg Val Arg Gly
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Leu Tyr Phe Pro Ala
35

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1 5 10 15

Ile Thr Glu Gly Gly
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1          5          10          15

Pro Arg Val Arg Gly Leu Tyr Phe Pro Ala
          20          25

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<223> Xaa can be any naturally occurring amino acid

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1          5          10          15

Leu Leu Val Pro Phe Val Ser Ser Ser Asp Pro Arg Val Arg Gly Leu
          20          25          30

Tyr Phe Pro Ala
          35

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Xaa Ala Ala Ser Ser Pro Ala Asp Arg Glu Ala Ala Ala Phe Leu Pro
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Ser Asp Phe Phe Pro Ser Val Gly Gly Asp Pro Arg Val Arg Gly
          20          25          30

Leu Tyr Phe Pro Ala
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Pro Phe Val Gln Trp Phe Val Ser Ser Ser Asp Pro Arg Val Arg Gly
          20          25          30

Leu Tyr Phe Pro Ala
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1 5 10 15

Pro Thr Val Trp Leu Ser Val Gly Gly Gly Asp Pro Arg Val Arg Gly
20 25 30

Leu Tyr Phe Pro Ala
35

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Ile Phe Phe Cys Leu Trp Val Gly Gly Gly Asp Pro Arg Val Arg Gly
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Leu Tyr Phe Pro Ala
35

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Xaa Ala Ala Ser Ser Gln Tyr Ile Lys Ala Asn Ser Lys Phe Ile Gly
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      20      25      30
Asp Pro Arg Val Arg Gly Leu Tyr Phe Pro Ala
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<223> xaa can be any naturally occurring amino acid

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Xaa Ala Ala Ser Ser Gln Tyr Ile Lys Ala Asn Ser Lys Phe Ile Gly
1      5      10
Ile Thr Glu Gly Gly Gly Phe Leu Pro Ser Asp Phe Phe Pro Ser Val
      20      25      30
Ser Ser Ser Asp Pro Arg Val Arg Gly Leu Tyr Phe Pro Ala
      35      40

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<400> 62

Xaa Ala Ala Ser Ser Gln Tyr Ile Lys Ala Asn Ser Lys Phe Ile Gly
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Ile Thr Glu Ala Ala Ala Tyr Val Asn Thr Asn Met Gly Leu Lys Gly
 20 25 30

Gly Gly Asp Pro Arg Val Arg Gly Leu Tyr Phe Pro Ala
 35 40 45

<210> 63
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<400> 63

Xaa Ala Ala Ser Ser Gln Tyr Ile Lys Ala Asn Ser Lys Phe Ile Gly
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Ile Thr Glu Ala Ala Ala Pro Leu Gly Phe Phe Pro Asp His Gly Gly
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Gly Asp Pro Arg Val Arg Gly Leu Tyr Phe Pro Ala
 35 40

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Ile Thr Glu Ala Ala Ala Met Gln Trp Asn Ser Thr Ala Leu His Gln
 20 25 30

Ala Leu Gln Asp Pro Gly Gly Gly Asp Pro Arg Val Arg Gly Leu Tyr
 35 40 45

Phe Pro Ala
 50

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<400> 65

xaa Ala Ala Ser Ser Pro Asp Ala Arg Glu Ala Ala Ala Ser Ile Leu
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1 5 15
Ser Lys Thr Gly Asp Pro Val Gly Gly Gly Asp Pro Arg Val Arg Gly
 20 25 30

Leu Tyr Phe Pro Ala
 35

<210> 66
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Xaa Ala Ala Ser Ser Pro Ala Asp Arg Glu Ala Ala Ala Val Leu Gln
1 5 10 15

Ala Gly Phe Phe Leu Leu Gly Gly Gly Asp Pro Arg Val Arg Gly Leu
 20 25 30

Tyr Phe Pro Ala
 35

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<400> 67

Xaa Ala Ala Ser Ser Pro Ala Asp Arg Glu Ser Ser Ser Phe Leu Leu
 1 5 10 15

Thr Arg Ile Leu Thr Ile Gly Gly Gly Asp Pro Arg Val Arg Gly Leu
 20 25 30

Tyr Phe Pro Ala
 35

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Xaa Ala Ala Ser Ser Pro Ala Asp Arg Glu Ala Ala Ala Phe Leu Gly
 1 5 10 15

Gly Thr Pro Val Cys Leu Gly Gly Gly Asp Pro Arg Val Arg Gly Leu
 20 25 30

Tyr Phe Pro Ala
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<400> 69

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Gly Gly Gly Asp Pro Arg Val Arg Gly Leu Tyr Phe Pro Ala
35 40 45

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Thr Thr Val Val Arg Arg Gly Gly Gly Asp Pro Arg Val Arg Gly Leu
20 25 30

Tyr Phe Pro Ala
35

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CH3CH2CH=CHCH2CH=CH(CH2)CH=CH(CH2)7CO

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<223> Xaa can be any naturally occurring amino acid

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Xaa Ala Ala Ser Ser Pro Ala Asp Arg Glu Gly Gly Gly Trp Leu Ser
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Leu Leu Val Pro Phe Val Ser Ser Ser Asp Pro Arg Val Arg Gly Leu
20 25 30

Tyr Phe Pro Ala Arg Gly Leu Tyr Phe Pro Ala
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<223> Xaa is Lys with the following N-terminal modification:
CH3(CH2)14CO

<220>

<221> misc_feature

<222> (1)..(1)

<223> Xaa can be any naturally occurring amino acid

<400> 72

Xaa Ala Ala Ser Ser Tyr Ile Lys Ala Asn Ser Lys Phe Ile Gly Ile
1 5 10 15

Thr Glu Ala Ala Ala Met Gln Trp Asn Ser Thr Ala Leu His Gln Ala
20 25 30

Leu Gln Asp Pro Gly Gly Gly Asp Pro Arg Val Arg Gly Leu Tyr Phe
35 40 45

Pro Ala

50

<210> 73

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Immunogen

<220>

<221> MISC_FEATURE

<223> Xaa is Lys with the following N-terminal modification:
 $\text{CH}_3(\text{CH}_2)_7\text{CH}=\text{CH}(\text{CH}_2)\text{CO}$, $\text{CH}_3\text{CH}_2\text{CH}=\text{CHCH}_2\text{CH}=\text{CH}(\text{CH}_2)_7\text{CO}_7$

<220>

<221> misc_feature

<222> (1)..(1)

<223> Xaa can be any naturally occurring amino acid

<400> 73

Xaa	Ala	Ala	Ser	Ser	Gln	Tyr	Ile	Lys	Ala	Asn	Ser	Lys	Phe	Ile	Gly
1				5					10					15	

Ile	Thr	Glu	Gly	Gly	Gly	Asp	Pro	Arg	Val	Arg	Gly	Leu	Tyr
			20					25					30